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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,085	11/19/2003	Ramesh V. Peri	ITL.1059US (P17918)	7032

21906 7590 03/16/2006

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HOUSTON, TX 77024

EXAMINER	
SCHLIE, PAUL W	

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,085	PERI ET AL.	
	Examiner	Art Unit	
	Paul W. Schlie	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-28 have been examined as amended.

Response to Arguments

2. Applicant's arguments filed 2/13/06 have been fully considered but they are not persuasive.

As claim 1 claims simultaneous read access, not read/write access, the argument is not relevant to the cited rejection. Further, where although not the subject of the claim, it is also well understood by those of ordinary skill in the art at the time of claimed invention that simultaneous read/write access to any given address may be accomplished by either short-circuiting the newly written data value to a given address to the logical output of the memory selected through a multiplexer if both address are identical (as is commonly done in register file implementations utilizing a single port memory); or to utilize a multi-port asynchronous memory which utilizes the same bit-lines for reading and/or writing thereby transparently passing a given written value to a particular address to the output port if selecting the same logical address; or alternatively if utilizing a synchronous multi-port memory, a simultaneous read to the same location being written will inherently return the value presently stored, and the value being written to the same line will be correspondingly available the following cycle. Alternatively, simultaneous writes to the same address correspondingly inherently require logical sequential prioritization to deterministically resolve the logical conflict being introduced in such an event. All are considered obvious design choices known by those of ordinary skill in the art at the time of the claimed invention.

Claim Rejections - 35 USC § 102 / 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-28 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawasaki (5,742,790).

As per claims 1, 9, 15 and 23, Kawasaki teaches, through acknowledgement of prior art, a processing system and method wherein multiple distinct access requests may be determined to be to a common line of memory by comparing their respective addresses for equality, and thereby enabling their simultaneous access if no otherwise conflicting modifying accesses are simultaneously requested from within said common single line of memory; which may itself be obviously comprised of, in the simplest case, an otherwise conventional single-port memory storing lines of potentially simultaneously accessible data, thereby effectively logically equivalent to a multi-port single entry direct mapped cache within which one or more of multiple words may be selected simultaneously through the use of multiple multiplexers associated with each of the ports independently (see abstract lines 1-18, column 2 lines 1-7, and figures 2-3; and

although not cited as the basis of these claim's rejection, please see US Patents cited regarding further reference to common way address detection and utility prior art, including Johnson US 6,629,206 teaching parallel reads in a Harvard Architecture Computer System.)

As per claims 2-8, 10-14, 16-22 and 24-28, being dependant on claim 1, 9, 15, 23, Kawasaki teaches as detailed above, multiple portions of a single line (i.e. sub-lines) may be simultaneously read when corresponding multiple addresses are determined to compare as being equivalent or referencing an equivalently addressed line where neither the architecture of a processor nor the width of the memory or data being accessed is considered patentably distinguishable as they are not functionally significant to the claimed invention (claims 2-8); and as claims 10-14, 16-22 and 24-28 are considered to correspond to claims 2-8 in other format, they are correspondingly rejected based on the same augments above.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765, or whose email address is [paul.schlie@uspto.gov]. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PIERRE BATAILLE
PRIMARY EXAMINER
3/11/06